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ABSTRACT

Research studies on the influence of the viewing environment on children's attention to television and the amount of television viewed are reviewed, as well as control of television viewing through environmental design and what is known about the kinds of environments depicted on television. How television can influence the development of our environmental preference and behavior-environment congruence is also explored. (Author/CMV)

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A Part of Our Environment Left Unexplored by Environmental Designers: Television

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A PART OF OUR ENVIRONMENT LEFT UNEXPLORED BY ENVIRONMENTAL DESIGNERS: TELEVISION

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ABSTRACT

Although television is a pervasive part of our environment, it has not been the focus of any of the papers presented in previous years at the Environmental Design Research Association's conferences. Only scattered information on the viewing environment (i. e., the environment that people are in when viewing television) and the environment viewed (i. e., the kinds of environments shown on the television screen) is currently available. Research on the influence of the viewing environment on children's attention to television, the influence of the viewing environment on the amount of television viewed, control of television viewing through environmental design and a review of what is known about the kinds of environments depicted on television were presented. How television can influence the development of our environmental preferences and behavior-environment congruence was explored.

A PART OF OUR ENVIRONMENT LEFT UNEXPLORED BY ENVIRONMENTAL DESIGNERS: TELEVISION

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In the span of only three decades, television has become ubiquitous in American homes. In 1949, only one million American homes had television sets. Two years later, there were ten million American homes with TV sets, and by 1960, there were well over fifty million. Today, more American homes have TV sets than any other electrical appliance; many more homes have television than indoor plumbing.

Statistics documenting the use of the medium among children are striking. The average child under 12 spends approximately 25 hours per week watching television, and the vast majority of all children watch some television every day (Lyle & Hoffman, 1972a, 1972b). Estimates indicate that a child born today will have spent 22,000 hours in front of the set, may have been exposed to as many as 350,000 commercials and will have spent more time watching television than any other single activity but sleep by age 18 (Liebert, Neale, & Davidson, 1975).

An activity as pervasive in our lives as television, must be accommodated for in our physical environment. Johnson (1967) reported that engineers in large metropolitan areas have had to re-design city water systems because of television -- to accommodate the drop in water pressure caused by heavy lavatory use during prime time commercials.

Although television is a pervasive part of our environment, it has not been the focus of any of the papers presented in previous years at the Environmental Design Research Association's conferences. The purpose of the present paper is to discuss some of the reasons why environmental designers might be interested in studying the viewing environment (i. e., the environment that people are in when viewing television) and the environment viewed (i. e., the kinds of environments shown on the television screen).

THE VIEWING ENVIRONMENT

The amount of television watched correlates with characteristics of the individual such as age and sex (Anderson & Levin, 1976; Lyle & Hoffman, 1972a, 1972b; Maccoby, 1951; Mehling, 1960), race and socioeconomic status (Albert & Meline, 1958; Blood, 1961; Greenberg & Dominick, 1969; Levin, Note 1; Lyle & Hoffman, 1972a, 1972b), and educational level and intelligence (Liebert et al., 1975). Visual attention to programs has been shown to be influenced by both the content of the program and specific visual and auditory techniques (e. g., camera cuts, zooms, music, special sound effects) that are used to present the story line (Anderson & Levin, 1976; Watkins, Fox, Greer, & Huston-Stein, Note 2). Although the influence of the viewing environment upon television viewing has not been as extensively studied, preliminary evidence suggests that it, too, can be influential upon attention to the screen and the amount of television watched.

The influence of the viewing environment on children's attention to television. Our knowledge of the influence of the viewing environment upon children's attention to the screen, What we do know is limited to the presence of other viewers, the availability of toys and the height of the

television set.

In a small-scale laboratory study, Sproull (1973) compared four-year old children's attention and involvement to Sesame Street under conditions which involved either viewing the program individually, or in groups of four. Sproull found no differences between solitary and group viewing in the amount of visual attention, but she did find that children viewing in groups exhibited much more overt "involvement" with the TV program than children viewing alone.

Survey data indicate that at home, children typically watch television with other children or with an adult. Murray (1972), in a small scale study of black inner-city five- and six-year old children's home TV viewing, noted that two or more children were present during 72% of the daytime observation periods. Lyle & Hoffman (1972b) interviewed preschool children and found that only 14% typically viewed television by themselves. Nielson data (1975, 1976) reveal considerable differences in adult-child co-viewing levels by time of day, reaching a high of 70% for prime time programming (7:30 p.m. - 11:00 p.m.), falling to 57% for weekdays (10:00 a.m. - 4:30 p.m. Monday - Friday) and showing a low of 20% for Saturday mornings.

In a laboratory study conducted by Lorch, Anderson, & Levin (Note 3) the availability of toys on children's attention to Sesame Street was examined. When attractive toys were available, five-year olds' attention to the program dropped from 87% to 44%. Although in-home observational studies have not examined the play activities of children while watching TV, anecdotal reports suggest that toy play is typical (Allen, 1965; Bechtel, Achelpohl, & Akers, 1972).

Eck, Herbert-Jackson and Risley (Note 4) experimentally manipulated the height of the television set in a day care center. The amount of television viewing was found to be directly related to the height at which the set was placed. When the television set was between 8" and 17" above the children's sitting height, the children spent more time watching television, were more involved with their environment, and fewer disruptions among the children occurred than when the television set was either higher or lower than this range.

The influence of the viewing environment on the amount of television viewed in institutions. Several researchers have found television to be important in the lives of the residents of institutions.

Prestholdt, Taylor, & Shannon (1976) compared two correctional institutes for women. One was an old facility with two large open-bay barracks without air- conditioning and adequate heating. Each dorm contained sleeping space for about 50 residents, a small TV room, and shower and toilet facilities. The other facility was new, contained three dorm units, each with a living room and a glass-enclosed TV room bordered by the private rooms of each resident. At both facilities the researchers administered environmental evaluation instruments, checklists, and questionnaires, as well as collecting behavioral mapping data. Both the mapping data and the inmates' self-reports indicated that the inmates engaged in less outdoor recreational and social activities and more indoor and semi-social activities, especially watching television in the new facility, as compared to the old one.

When television sets are located in an undesirable environment, use of the setting may be infrequent. According to Preiser (1970) even though

undergraduates at Virginia Polytechnic Institute wanted to watch television in the university lounges, the physical design of the lounges (barren furnishings, poor choice of materials, small size) inhibited the amount of time spent there.

For young children in institutions however, even when the television is in an undesireable location, it tends to dominate their daily behavior. Rivlin, Wolfe, and Beyda (1973) studied the frequency of activities occurring in various locations within a psychiatric facility for children. One of their findings was that even though the location of the TV set was in a more desirable location for the older children, the television set was a stronger environmental "magnet" for the younger children. They found that the younger children engaged in 259 activities in the TV area as compared with less than half that number (124) in the non-TV areas, while older children engaged in approximately the same number of activities in the TV and non-TV areas (212 and 255 activities respectively).

Studies specificially examining the influence of the viewing environment upon the amount of television watched, attention to television programs, and the kinds of behavior that occur while people watch television are needed. It would be appropriate for researchers concerned with the relationship between the environment and behavior to conduct such studies.

Control of television viewing through environmental design. Many people consider their own television viewing, or that of their children or spouse to be excessive. In The Plug-In Drug, a popular book writen primarily for parents and educators, Marie Winn (1977) discusses ways in which parents can control the amount of television their children watch.

One general strategy is to set firm and non-negotiable rules about viewing. These might be restrictions on which days of the week television can be watched, limits on the number of hours television can be watched, censorship on the types of programs viewed, or rules about other daily activities (such as homework or household chores) that must be completed before television can be viewed. An alternative strategy is to use what Winn calles "natural" forms of control. Many of these involve physical factors concerning the sound and placement of the television set itself. For example, parents might purposely neglect getting a TV set with bad sound and/or picture fixed in order to deter viewing, might structure a rich social life for their children in order to provide activities to compete with the television, or can place the television in the basement or closet with the hopes that if it is "out of sight, it is out of mind." If more were known about how the environment actually affects television viewing, environmental designers would be in a better position to specifically create environments to either encourage or discourage the use of the television set.

When scenarios are created to describe television viewing, the TV set is generally placed in the living room for all the family to watch. Yet, no one has examined whether this is an accurate picture of where TV sets are usually located, or what people view as the "ideal environment" in which to watch television. Sauer and Marshall (1972) interviewed six families about the layout of their house and about changes they would like to make in the layout. As part of the interview, they were asked about the present and preferred location of the TV set. Five of these six families presently had the TV set in the living room. Two of these families also

had a set located in another room as well. Two of the six families said that they did not prefer to have a separate room in which to watch television (one of these families presently had the set in a separate room). Of the remaining four families, three reported that they would prefer to have a separate room for the TV set, even if this meant that the living room would have to be substantially reduced in size. Although more study is obviously needed, the results from this small sample suggest that although most families generally have their television sets in the living room, they would prefer to have a separate, small room in which to watch TV. Whether placing the television in a separate room would lead to more viewing (it would be in a more private, quieter location) or less viewing (it would be in a room that would be approached only when the person specifically wanted to watch TV) could be the focus of an interesting study.

THE ENVIRONMENT VIEWED

One of television's greatest powers is its capacity to transport; to display people, events and ideas that many people have never encountered before and are unlikely to have the opportunity to confront in person. Sesame Street, a popular children's program, has taken children to the dentist, an automobile assembly plant, a fishing ship, the back of a bakery, an African play area for children, a farm, a junkyard, several zoos, down a mail chute and to many other places that they could not visit on their own (Lesser, 1974). What other settings does a child get exposed to by watching television? This is a basic question, yet the present investigators of children's television have not asked it.

Barcus (1977) conducted an extensive content analysis of dramatic television programs. As part of the many categories of content analyzed,

the time and place in which the action occurred were noted. He found that 69% of all programs occurred in the present (17% occured in the distant past, 8% in the recent past and 6% in the future). It was also found that 84% of all programs occurred in the United States (41% in U.S. cities, 43% in rural parts of the U.S.) and the remaining 16% occurred in cities and rural parts of foreign countries and outer space. This analysis is obviously a very incomplete measure of the environments shown on the television screen.

Most of the information about the settings portrayed on television is gained indirectly from studies primarily concerned with entirely different issues. For example, Downing (1974) was interested in evaluating the image of women on daytime American television programs. To do this, she studied the microcosm in which the women appeared. A complete uniformity of setting from serial to serial was found:

> All of the dramas broadcast in the summer of 1973 took place in the present time, in the U.S. and in a small town with a euphonious name, whose boundaries are amorphous and which seems to be located about 50 miles from N.Y., Chicago, or L.A.
>
> Other than Peyton Place, a town whose principal industry is fishing, the towns have little distinctive flavor and all action takes place indoors.
>
> Interiors are identical from serial to serial. Households have living rooms, kitchens, bedrooms and patios, but no bathrooms, dining rooms, attics, or cellars. The servantless households are always immaculately in order, and since furnishings do not vary from one play to another, the housewives appear to share the same taste in decor.

Roberts (1970) also studied settings in order to evaluate the images presented of television Blacks. Roberts concluded that if the

background settings in which Blacks appeared were perceived as indicators of socio-economic conditions of Blacks, then a distortion was quite obvious. Examples provided included Mod Squad, a program that took place in a Black person's spacious and exquisitely furnished apartment, and Julia, in which the Black protagonist always dressed fashionably and drove a new convertible. Roberts felt that "the 'humbler' dwellings of Blacks are recognized only in television newscasts and documentaries and certain public television programs."

In the very first article in the proceedings of the first Environmental Design Research Association conference, Amos Rapoport (1970) discussed various materials that could be used by researchers interested in environmental design. The various sources discussed were written materials such as newspapers, magazines, novels, poems, travel books, science fiction, religious texts, written versions of oral traditions and plays; and pictorial material including photographs, prints, paintings and drawings. It was stated that "Potentially, these provide a very useful source of material since descriptions of different environments are frequently found. These do not constitute the prime concern of the author but are rather perceptive insights related to the mood and activities in question (p. 4)." Television, as another potentially valuable source of information about the environment was omitted by Rapoport. It is likely that television is influential in forming our environmental preferences as well as teaching us how to behave in unfamiliar settings. Accordingly, content analyses of the various environments presented on television would be a useful endeavor for

researchers interested in environmental design to pursue.

Television's influence in developing our environmental preferences. By communicating information, television shapes our attitudes about the world, as well as attitudes about ourselves. As one might expect, television's influence is greatest when the viewer has little personal contact or other sources of information about a particular group of people or situation shown on television. The images and stereotypes portrayed in television appear to be a particularly important source of learning for children. Learning and believing the images presented on television is not limited to the young and naive, however. Adults who are heavy television viewers have been found to differ from light viewers in over-estimating the percentage of whites and nonwhites employed in professional and managerial occupations and the percentage in law enforcement (Gross, 1974). Heavy viewers of television have been found to have more traditional sex-role stereotypes than light viewers (Beuf, 1974), to be more aggressive than light viewers, and to think of television dramas as an accurate depiction of the real world.

Television portrayals influence behaviors such as aggression, prosocial behaviors (e. g., cooperation, helpfulness, delay of gratification, task persistance, creative use of fantasy), social knowledge and stereotypes about groups of people and cognitive functioning (see Stein & Friedrich, 1975 for a comprehensive review of this literature). It is likely that television also plays an important role in developing our environmental preferences.

In a study of preferences for various kinds of housing, Michelson (1970) found that the lower a person's education, the more hours televi-

sion was watched. Furthermore, the more television was watched, the more likely the person was to prefer the outside design of a single family house as opposed to a multiple family dwelling. Michelson concluded: "What this adds up to is that education varies directly with preference for some other housing design and inversely with television viewing, which itself is inversely related to an unconventional design preference." Because of the correlational nature of this study, and since our environmental preferences are influenced by many social sources other than television (e. g., family, friends, books, movies, past experiences) it is difficult to determine television's impact independent of the other sources to which we are exposed. However, studies that examine the impact of television upon our environmental preferences could be designed and conducted.

Television's influence in developing behavior-environment congruence. Study of the environments depicted on television is also important for theoretical reasons. In an article published several years ago, Wicker (1972) asked the important question "Why do predictable, regular patterns of behavior occur within the boundaries of settings?" Wicker used four psychological theories (operant learning, observational and instructional learning, behavior setting theory and social exchange theory) to examine the processes that might be responsible for mediating behavior-environment congruence.

Another question raised by Wicker, but left unanswered was "How is it possible for people to behave appropriately when they enter an unfamiliar settings?" It is likely that television is quite influential in teaching this information.

In a recent rerun of the program "Family Affair," the children in the show were instructed by their father that since they lived in a apartment building, it would not be fair to the other tenants if they bought a dog. Systematic analyses of the many times that television instructs us about appropriate and inappropriate behaviors for particular settings would certainly help us formlate theories to explain the development of what Wicker calls behavior-environment conguence and Barker and Wright (1955) have termed the "standing pattern of behavior" of settings. It appears that television can be studied in a variety of ways that could contribute information useful to those of us interested in environmental design.

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